

ABSTRACT OF THE DISCLOSURE

X-ray inspection of mounting conditions of electronic devices such as BGAs and CSPs, which are steadily getting smaller and having higher densities on circuit boards, particularly open solder ball connection and the like, can be precisely judged. An X-ray source applies X-rays and an X-ray detecting device to detect X-rays are arranged so as to face each other with a sample therebetween. X-rays emitted from the X-ray source pass through the sample and are detected in the X-ray detecting device. An X-ray incidence plane in the X-ray detecting device is arranged so as to be parallel to an axis S. A swinging device swings or orbits the X-ray detecting device about the axis S as a central axis while the X-ray incidence plane is kept facing in the same direction all of the time. A rotating device rotates or pivots the X-ray source about the axis S in synchronization with the X-ray detecting device.